

AMENDMENTS**IN THE SPECIFICATION**

Please replace the paragraph beginning at page 26, line 19 with the following rewritten paragraph.

The invention also encompasses methods of assaying for α -secretase activity where hu-Asp1 protein and its substrate are brought into contact by a growing cell transfected or transformed with a polynucleotide encoding the hu-Asp1 protein or a fragment thereof that retains α -secretase activity under conditions where the cell expresses hu-Asp1 protein in the presence of the APP substrate. The APP substrate in such circumstances can be exogenously introduced, or more preferably, is expressed by the cell that expresses Asp1. These methods also encompass contacting hu-Asp1 protein with a cell that expresses a polynucleotide that encodes an APP substrate containing an α -secretase cleavage site. For example, the cell may express a polynucleotide that encodes a polypeptide having an α -secretase cleavage site comprising the amino acid sequence LVFFAEDF (SEQ ID NO: 84) or KLVFFAED (SEQ ID NO: 73). In addition, the APP substrate may comprise any human isoform of APP, such as "normal" APP (APP695), APP 751, or APP770. These APP substrates can be further modified to comprise a carboxy-terminal di-lysine motif.

IN THE SEQUENCE LISTING

Please replace the second sequence listing filed on June 2, 2002 (1-92 pages) with the second substitute sequence listing submitted herewith (1-92 pages).

IN THE CLAIMS

Please amend claim 62 and add new claim 78 as follows. Please cancel claims 1-52, 68-69 and 71-77, without prejudice, as they are directed to a non-elected invention.

62. (Amended) A method of claim 53, wherein the APP substrate α -secretase cleavage site comprises the amino acid sequence LVFFAEDF (SEQ ID NO: 84) or KLVFFAED (SEQ ID NO: 73).

78. (New) A method of claim 54, wherein the polynucleotide sequence encodes a hu-Asp1 amino acid sequence comprising amino acids 63-468 of SEQ ID NO: 2.